

## **Pre-construction baseline monitoring of pikas for Washington's I-90 Snoqualmie Pass East project: Habitat and Distribution**

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Pikas (*Ochotona princeps*) are a low-mobility, talus-obligate species. During 2008, we began baseline monitoring of this species adjacent to the Interstate 90 (I-90) Snoqualmie Pass East project to determine the distribution of talus, talus patch occupancy by pikas, and pika relative abundance. We mapped 46 talus patches onto a project area map, and conducted surveys for pika abundance at 40 patches. Pikas occurred at 38 of the talus patches we visited, including 3 sites directly adjacent to I-90 (i.e., abutting highway shoulders or bridge supports). Occupied patches included both natural talus and human-made rock piles. Pikas were directly observed (seen or heard calling) at the majority of these sites; only indirect evidence (pika haypiles or latrines) was found at some sites. We conducted live-trapping at nine different talus sites, 3 north of I-90, 5 south of I-90, and one directly under or adjacent to I-90. These talus patches ranged in size from < 1 to ~20 acres. We marked trapped pikas with ear tags, collected ear tissue samples for genetic analyses, and then released pikas at the site of capture. A total of 29 individual pikas was captured, at six of the nine trapping sites. We also characterized talus patch habitat by measuring isolation (distance to nearest talus patch), slope angle, slope aspect, percent canopy cover, and rock size. Overall, pikas occupied most talus patches surveyed in the I-90 project area. Relative abundances varied considerable, as did habitat characteristics. A monitoring plan for pre- and post-construction was developed.